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EXAMINER

CAMARGO, MARLY S.B.

ART UNIT

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2622

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |  |  |
|------------------------------|--------------------------------------|--|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/532,034 | <b>Applicant(s)</b><br>KUROSAWA ET AL. |  |
|                              | <b>Examiner</b><br>MARLY CAMARGO     | <b>Art Unit</b><br>2622                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 4-6,8-15,17-24,26,28,30 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,7,16,25,27,29 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Election/Restrictions*

1. Applicant's election without traverse of Species I (Fig 2) and claims 1, 2, 3, 7, 11, 15 – 19, 22, and 24 – 32 in the reply filed on October 1st, 2008 is acknowledged. Therefore, claims 4 – 6, 8 – 10, 12 – 14, 20, 21 and 23 are non-elected and they are withdrawn from examination.
2. Although, Applicant elected claims 1, 2, 3, 7, 11, 15 – 19, 22 and 24 - 32, the Examiner knows that claims 11, 15, 17 – 19, 22, 24, 26, 28, 30 and 32 read in the non-elected species and they are therefore withdrawn from examination.
  - a. Regarding Claim 11: claim 11 discloses a **“a switching and selecting means 21”** that reads in Figures 4 and 5 of Species II that corresponds to non-elected species; therefore claim 11 is withdrawn from examination. Also, claim 11 depends on claim 8 which is a non-elected claim.
  - b. Regarding Claim 15 and its dependent claims (24): claim 15 recites **“a means for converting the horizontal pixel number of digital image data into a predetermined horizontal pixel number other than the number, or half the number, of horizontal pixel suitable for the generation of video signals for the first**

**television system, and the display panel (19, 19') further includes a display panel of the predetermined horizontal pixel number.** This reads on Figure 7 and paragraphs [0018, 0019] where the multiplication factor is not the 11/10 or 11/20 as indicated in Figure 2 (Elected species I) that gives the value or half of the value for the horizontal pixels but not a predetermined size other than that which could include multiplication factor of 3/2 or 3 as indicated for the horizontal pixel number converter 51, as illustrated in Fig 7, which is a non-elected species. Claim 24 depends on claim 15. Therefore, claims 15 and 24 are withdrawn from consideration.

- c. Regarding Claim 17 and its dependent claims (claims 18, 19 and 22): claim 17 discloses **“a first output means (14) which digitally outputs the digital image provided by the video memory (11) ...”** which means a signal comes straight from memory 11 into element 14 and that reads only in Figure 6 or Species III, which is a non-elected species. Therefore, claim 17 and its dependent claims 18, 19, and 22 are withdrawn from consideration.
- d. Regarding Claim 26: As for claim 17, it recites **“a first output circuit (14) which digitally outputs the digital image provided by the video memory (11) ...”** which means a signal comes straight from memory 11 into element 14 and that reads only in

Figure 6 or Species III, which is a non-elected species. Therefore, claim 26 is withdrawn from consideration.

- e. Regarding Claims 28 and 30: Both claims recite a camera which includes an image signal generation unit (10). Claim 28 includes element (10) disclosed in claim 17 and claim 30 includes element (10) disclosed in claim 26, which reads on Figure 6 (Species III) which is a non-elected species (See items b and c above). Therefore, claims 28 and 30 are withdrawn from consideration.
- f. Regarding Claim 32: claim 32 pertains to a method for operating the cameras of claims 28 and 30 having an image signal generation unit (10), which reads on the non-elected Species III (Figure 6). Therefore, claim 32 is withdrawn from consideration.

So, currently claims 1 - 32 are pending; claims 4 – 6, 8 – 15, 17 – 24, 26, 28, 30 and 32 are withdrawn and claims 1, 2, 3, 7, 16, 25, 27, 29 and 31 are considered on the merits.

The election / restriction requirement is still deemed proper and is therefore made FINAL.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1 – 3, 7, 16, 25, 27, 29 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by “Yoshihiro Saga, JP-2000-293145”.**

Regarding claim 1: As per Saga

**An image signal generation unit (10) comprising: a horizontal pixel number conversion means (12, 14) for (Fig 10, 110 and 111 are horizontal pixel conversion means) converting horizontal pixel number of a digital image data to a number, or half the number, suitable for generation of video signals for first television system; and**

(In the Abstract, Saga teaches a camera system that can take pictures, provides a quick review operation and reproducing operation for producing high quality images. The images produced by the image sensor will have its resolution changed into various sizes as to be displayed. In paragraphs [0002 – 0046] and Fig 10, Saga teaches a camera system from the prior art, which can take the luminance (Y) and color difference (Cb, Cr) image signals from an image generated by the image sensor 101, in a small size (640 pixels) or large size (1280 pixels) and convert it into a line image data of 704

Art Unit: 2622

pixels, outputting the images to an LCD 117 (or viewfinder) or to a video output terminal 130. The camera of Fig 10 has two horizontal pixel conversion means: 110 is a conversion means with a magnifying power  $11/10$ , converting the small image of 640 pixels into 704 pixels [Note:  $640 \text{ pixels} \times 11/10 = 704 \text{ pixels}$ ]; 111 is a conversion means with magnifying power  $11/20$ , converting for example the large size image of 1280 pixels into 704 pixels [Note:  $1280 \text{ pixels} \times 11/20 = 704 \text{ pixels}$ ]. If, for example, the large image goes to conversion means 110, it will be converted into 1408 pixels [ $1280 \text{ pixels} \times 11/10 = 1408 \text{ pixels}$ ]. If the small image goes to conversion means 111, it can be converted into 352 pixels [ $640 \text{ pixels} \times 11/20 = 352 \text{ pixels}$ ]. Thus, the number of pixels of the video signal can be changed so as for an image to be displayed in an LCD or any other display. In [0015 - 0022], Saga teaches the finder mode where at the time of a finder, image sensor 101 is driven so that 1 field (or 1 frame) may be 640X240 pixels. The timing generator 119 outputs a driving signal to the sensor. The switch 108 is connected to a when the finder mode is operating and in this way the A/D signal is not recorded on DRAM memory 106, but is directly inputted into the signal processor 104, which generates a luminance and color difference picture signal. Switch 109 is connected to a for the finder mode and thereby, the luminance and color difference data which comprises 640 horizontal pixels is converted into 704 pixel data by being expanded with the magnification  $11/10$  from conversion means 110. The expanded image data is recorded on VRAM 116 by the VRAM controller 115. The controller 115 reads the image from VRAM 116 synchronizing with the NYSC (National Television Systems Committee) standard and outputs this to the LCD 117. Thus the image

Art Unit: 2622

captured by the image sensor 101 is displayed on the viewfinder (LCD 117) in the NTSC standard as claimed, when camera is in the finder mode.)

**a first output means (14) for digitally outputting the digital image data with the horizontal pixel number converted by the horizontal pixel number conversion means (12, 14) to a driving circuit (19a) of a display panel (19, 19') (See Fig 10, LCD 117);**

(As discussed above, Saga teaches a camera system capable of changing the captured image format into a format compatible with an LCD that operates according to the NTSC standard. The first output means correspond to the VRAM controller circuit 115 that reads the images from VRAM memory 116, which were previously converted by the horizontal pixel converter 110, and output such images to the LCD 117 or display panel as claimed.)

**characterized in that a horizontal pixel number of the display panel (19, 19') is approximately equal to the horizontal pixel number, or half the number thereof, suitable for the generation of the video signals for the first television system.**

(Saga discloses a display LCD 117 that operates according to the NTSC standard for, for example, 704 pixels, which correspond to the same number of horizontal pixels of the converted images as claimed.)



Regarding Claim 2:

**An image signal generation unit (10) according to claim 1 characterized in that, the horizontal pixel number suitable for the generation of the video signals for the first television system is 704 pixels or 1408 pixels, and the horizontal pixel number conversion means (12, 14) converts horizontal pixel number of digital image data into 352 pixels, 704 pixels or 1408 pixels, and the horizontal pixel number of the display panel (19, 19') is approximately equal to 352 pixels, 704 pixels or 1408 pixels.**

(The rejection of claim 1 is incorporated herein. As discussed for claim 1, Saga teaches that the video signal outputted by the camera of Fig 10 is done at the NTSC standard of 704 horizontal pixels. In this case the conversion means 110 and 111 can convert the images into the 704 format by using a small (using conversion means 110) and a large (using conversion means 111) images. As indicated by Saga, various sizes of images can be generated as to be displayed. Therefore, if the image of 640 horizontal pixels is sent to the second conversion means 111, with magnifying power of 11/20, the image will be converted into 352 pixels and if the image of 1280 pixels goes to conversion means 110, it will be converted into 1408 pixels and they will be displayed. Since several options are available such as the ones discussed, the images converted into those formats could be displayed according to the user preference.)

Regarding Claim 3:

**An image signal generation unit (10) according to claim 1, characterized in that video signals of the first television system are NTSC (National Television Systems Committee) signals.**

(The rejection of claim 1 is incorporated herein. As discussed for claim 1, the video signals outputted by the camera system of Fig 10 are done according to the NTSC standard (See [0022]).)

Regarding Claim 7:

**An image signal generation unit (10) according to claim 1 characterized by further comprising a second generation means (14) for generating a digital RGB code signal from digital image data with the horizontal pixel number converted by the horizontal pixel number conversion means (12, 14), and characterized in that the first output means (14) digitally outputs digital RGB code signals generated by the second generation means (14) in the driving circuit (19a) of the display panel (19, 19').**

(The rejection of claim 1 is incorporated herein. The system disclosed by Saga includes the prior art (Fig 10) and the camera of his invention (Fig 1) which have many common features. In [0027], in reference to Fig 10, Saga teaches that the image signals are outputted by the image signal processor 104 as luminance and color difference. In paragraph [0094], as for Fig 1, Saga teaches that the signals are outputted as luminance Y and color difference image data that comprises Cr that shows R-Y

Art Unit: 2622

difference for the red color and Cb that shows the B-Y difference for the blue color.  
Thus Saga teaches a system that can output RGB code signal generated by the first or  
the second conversion means 110 and 111. In Fig 10, 110 correspond to the second  
generation means for generating the RGB code signals which are recorded by VRAM  
116 under control of VRAM controller 115 that reads the data according to NTSC and  
outputs it to LCD 117.)

Regarding Claim 16:

**An image signal generation unit (10) according to claim 1 characterized in that the first output means (14) includes a means for converting digital image data of primary color in parallel structure into serial data, and digitally outputting them to the driving circuit (19a) of the display panel (19, 19').**

(The rejection of Claims 1 and 7 is incorporated herein. As discussed previously, Saga teaches a camera system that outputs luminance and color difference image signals which are based on R, G, B or the primary colors. In paragraph [0074], in reference to Fig 1 (which has most of the components of Fig 10), Saga teaches that the image sensor 101 is a CCD device. It is inherent to CCD image sensors to read the pixel columns (or parallel structure as claimed) and output it as horizontal lines or into serial data as claimed. As discussed for claims 1 and 7 the image data of luminance Y and color difference Cr and Cb which corresponds primary color code signals being

Art Unit: 2622

read and recorded into VRAM 116 and the VRAM controller 115 outputs the image signals to the LCD 117.)

Regarding Claim 25:

**An image signal generation unit (10) comprising: a horizontal pixel number conversion circuit (12, 14) (Fig 10, 110 and 111 are horizontal pixel number conversion circuits) for converting a digital image data horizontal pixel number to a number, or half the number, suitable for generation of video signals for first television system; and a first output circuit (14) for digitally outputting the digital image data with the horizontal pixel number converted by the horizontal pixel number conversion circuits (12, 14) in a driving circuit (19a) of a display panel (19, 19'); characterized in that a horizontal pixel number of the display panel (19, 19') (Fig 10, LCD 117) is approximately equal to the horizontal pixel number, or half the number, suitable for the generation of the video signals of the first television system.**

(The rejection of claim 1 is incorporated herein. As discussed for claim 1, Saga teaches a camera system in Fig 10 and paragraphs [0002 – 0046]. In Fig 1 and paragraphs [0072 – 0091], Saga teaches the camera system of his invention which includes most of the components of camera of Fig 10. In Fig 10, there are two horizontal pixel number conversion circuits 110 and 111 (while Fig 1 illustrates one conversion circuit 110) and both convert the image signal into a number or half of the number as

Art Unit: 2622

claimed. The first output circuit corresponds to the VRAM controller circuit 115, which reads the images from VRAM memory 116 that were previously converted by the horizontal pixel number conversion circuit 110 (also from circuit 111) and outputs it to LCD 117 according to the NTSC standard as claimed. Thus, images with 640 pixels are converted into 704 pixels and are displayed as 704 pixels according to the NTSC standard.)

Regarding Claim 27:

**A digital camera comprising: imaging means (33, 36, 37) for imaging an object and outputting digital image data; a horizontal pixel number conversion means (12, 14) (Fig 10, 110 and 111 are horizontal pixel number conversion means) for converting a horizontal pixel number of digital image data outputted by the imaging means (33, 36, 37) to a horizontal pixel number, or half the number, suitable for generation of video signals for first television system; and a first output means (14) for outputting digital image data with horizontal pixel number converted by the horizontal pixel number conversion means (12, 14), in a driving circuit (19a) of a display panel (19, 19') (Fig 10, LCD 117); characterized in that a horizontal pixel number of the display panel (19, 19') is approximately equal to the horizontal pixel number, or half the number, suitable for the generation of the video signal for the first television system.**

Art Unit: 2622

(The rejection of claim 1 is incorporated herein, since claim 27 discloses a camera system which includes the image signal generation unit (10) of claim 1. All the components included in claim 1 were already discussed. As for the CCD 33, sample and hold circuit 36 and A/D converter 37, in Fig 10, Saga teaches a camera systems that includes an image sensor 101 which is the same as sensor 101 of Fig 1 and it is a CCD (See [0074]); an image pickup circuit 102 (Figs 10 and 1) that includes sample and hold circuit and gain amplification (See [0075]) and an A/D converter 103 in both figures (See [0076]).)

Regarding Claim 29:

**A digital camera comprising: imaging circuits (33, 36, 37) for imaging an object and outputting digital image data; a horizontal pixel number conversion circuits (12, 14) (Fig 10, 110 and 111 are horizontal pixel number conversion circuits) for converting horizontal pixel numbers of digital image data output by the imaging circuits (33, 36, 37) to a horizontal pixel number or half the number, suitable for generation of video signals for first television system, and a first output circuit (14) for outputting digital image data with the horizontal pixel number converted by the horizontal pixel number conversion circuits (12, 14) to a driving circuit (19a) of a display panel (19, 19') (Fig 10, LCD 117); characterized in that a horizontal pixel number of the display panel (19, 19') is approximately equal**

Art Unit: 2622

**to the horizontal pixel number, or half the number, suitable for the generation of the video signal of the first television system.**

(The rejection of claims 1 and 27 is incorporated herein. Claim 29 has similar scope as for claim 27 and is therefore rejected. As previously discussed, Saga teaches the elements disclosed such as the horizontal pixel number conversion circuits 110 and 111; the image sensor 101 which is a CCD (See [0074]); an image pickup circuit 102 (Figs 10 and 1) that includes sample and hold circuit and gain amplification (See [0075]) and an A/D converter 103 in both figures (See [0076]; and LCD 117 that displays images according to the NTSC standard and have for example, 704 pixels (horizontal) which is the same number of horizontal pixels of the converted images of 640 pixels by using magnifying power of 11/10 and the 1280 by using the magnifying power of 11/20.)

Regarding Claim 31:

(The rejection of claims 1 and 27 is incorporated herein, since it pertains to the method steps for operating the image signal generation unit of claim 1 in the camera of claim 27. In order to operate the image signal generation unit of claim 1 in the camera of claim 27 it would have necessitated to operate the method steps as disclosed in claim 31.)

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Simpson et al., US 5,463,422 A – it teaches a method for recreating a certain size (W X H) full-motion video window on a display and images can be adjusted.
2. Winter et al., US 5,875,304 A – it teaches a digital recording device that records plural video streams in several formats.
3. K. Nakamura, US 6,982,756 B2 – it discloses a camera system with a video encoder unit that outputs signal in different formats for LCD, EFV and TV.
4. H. Ohtsuki, US PG Pub 2002/0027615 A1 – it discloses method and apparatus for outputting video signal where the images are outputted to a display section or to an external display device.
5. Y. Honma, US 6,480,230 B1 – it teaches an image processing of video signal for display and images are outputted to a TV monitor or an LCD.
6. Mizutani et al., US 6,674,464 B1 – it discloses an imaging apparatus for performing selective processing of image data where image data is outputted according to NTSC/PAL standards.
7. Klompenhouwer et al., US 6,937,217 B2 – it discloses a display device and method of displaying images for different pixel densities and where pixels are displayed in a delta formation with  $\frac{1}{2}$  pitch position readout.
8. Mizutani et al, US 7,358,992 B2 – it discloses an imaging apparatus with delay and processor that outputs images to a viewfinder into NTSC/PAL format.



***Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARLY CAMARGO whose telephone number is (571)270-3729. The examiner can normally be reached on 6:00AM - 10PM, M-F, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lin Ye can be reached on (571)272-7372. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Application/Control Number: 10/532,034  
Art Unit: 2622

Page 17

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